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BRUHATH BANGALORE MAHANAGARA PALIKE

Name of Work Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

E-MEASUREMENT BOOK

First& Part Bill

Name of Contractor: Sri K.M. Aswatha Narayana

Estimated Cost: Rs.166.66 Lakhs

Office of the
Asst.Executive Engineer
Shettyhalli Sub Division
Bruhath Bangalore Mahanagara Palike
Bangalore

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and Part Bill

Measurement Recorded in :

No.	Description of work	Chainage		No	L	B	D	Qty
1	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 as per Engineer In Charge							
	Venkateshwara layout Main road Abbigere							
		LHS	0	24	1	24	1.10	1.35	35.64
		LHS	24	34	1	10	1.10	1.25	13.75
		LHS	34	48	1	14	1.10	1.15	17.71
		LHS	48	68	1	20	1.10	0.90	19.80
		LHS	68	75	1	7	1.10	0.90	6.93
		LHS	75	149	1	74	1.10	0.90	73.26
								Total	**167.09**
									Cum

Assistant Engineer 04/12/2020
Ward No.12
BBMP, Bengaluru

Assistant Executive Engineer
Shettyhalli Sub Divison 2/12
BBMP, Bengaluru

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work	Chainage	No	L	B	D	Qty
2	KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs. with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. as per Engineer In Charge						
	Venkateshwara layout Main road Abbigere PCC Concrete						
	LHS	0	24	1	24	1.10	0.15	3.96
	LHS	24	34	1	10	1.20	0.15	1.8
	LHS	34	48	1	14	1.10	0.15	2.31
	LHS	48	68	1	20	1.10	0.15	3.3
	LHS	68	75	1	7	1.20	0.15	1.26
	LHS	75	149	1	74	1.10	0.15	12.21
							Total	**24.84**
								Cum

Assistant Engineer
Ward No.12
BBMP, Bengaluru
05/12/2020

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru
5/12

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work	Chainage		No	L	B	D	Qty
3	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specifications. do- Wall & bottom thickness 15cm as per Engineer In Charge							
	Venkateshwara layout Main road Abbigere Drain Bed and Wall Concrete							
	Drain Bed	0	24	1	24	0.90	0.15	3.24
	Wall			2	24	0.15	1.00	7.20
	Drain Bed	24	34	1	10	0.90	0.15	1.35
	Wall			2	10	0.28	0.55	3.08
	Drain Bed	34	48	1	14	0.90	0.15	1.89
	Wall			2	14	0.15	0.85	3.57
	Drain Bed	48	68	1	20	0.90	0.15	2.70
	Wall			2	20	0.15	0.85	5.10
	Drain Bed	68	75	1	7	0.90	0.15	0.95
	Wall			2	7	0.28	0.60	2.35
	Drain Bed	75	149	1	74	0.90	0.15	9.99
	Wall			2	74	0.15	0.60	13.32
							Total	**54.74**
								Cum

24/12/2020

Assistant Engineer
Ward No.12
BBMP, Bengaluru

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru

24/12

Civil-Tech Consultants & Engineers Bangalore

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and final Bill

Measurement Recorded in :

Sl. No	Description of work	No	L	B	D	Qty
4	KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C work TMT bars Fe500 including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specifications. as per Engineer In Charge					
	Venkateshwara layout Main road Abbigere "Drain steel"					
	Main rod 10 dia 200c/c 30mtr	150	2.25	0.62		**209.25**
		10	30.00	0.39		**117.00**
	30mtr	150	2.25	0.62		**209.25**
		10	30.00	0.39		**117.00**
	30mtr	150	2.25	0.62		**209.25**
		10	30.00	0.39		**117.00**
	30mtr	150	2.25	0.62		**209.25**
		10	30.00	0.39		**117.00**
	30mtr	150	2.25	0.62		**209.25**
		10	30.00	0.39		**117.00**
	10mtr	50	2.25	0.62		**69.75**
		10	10.00	0.39		**39.00**
					Total	**1740.00**
						1.74
						MT

Assistant Engineer 24/12/2020
Ward No.12
BBMP, Bengaluru

Assistant Executive Engineer 24/12
Shettyhalli Sub Divison
BBMP, Bengaluru

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work	Chainage		No	L	B	D	Qty
5	Providing and fixing precast reinforced cement concrete covering slabs of 10cm thick made out of M25 with OPC cement @340kgs per cum, 20mm and down size graded granite metal course aggregates @0.70cum and fine aggregated @0.74 cum with super plasticizers, machine mixed, including providing and removing centering, shuttering, strutting propping etc., for edges of slab with TMT steel (Fe500) cost & reinforcement charges, including finishing as required with cost of reinforcement etc, complete as directed by Engineer in Charge of the work.							
	Venkateshwara layout Main road Abbigere Drain coverslabs							
	LHS	0	24	1	24	0.90		21.6
	Deck	24	34	1	10	0.00		0
	LHS	34	48	1	14	0.90		12.6
	LHS	48	68	1	20	0.90		18
	Deck	68	75	1	7	0.00		0
	LHS	75	149	1	74	0.90		66.6
							Total	118.80
								Sqm

Assistant Engineer
Ward No.12
BBMP, Bengaluru
18/01/2021

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru
18/1

Civil Tech Consultants & Engineers Bangalore

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work	No	L	B	D	Qty
8	KSRRB 300-46. Scarifying by mechanical means stone metal crust 50mm to 100mm thick by along with 20mm premix carpet / surface dressing and stacking of old serviceable materials including cost of all labour charges, HOM complete as per specifications. MORTH / Chapter 3 as per Engineer in Charge					
	Shettyhalli railwaygate to Abbigere Main Road					
	Chainages	**No**	**L**	**B1**	**B2**	**D**	**Qty**
	0.00 30.00	1	0.00	10.00	8.00		0.00
	30.00 60.00	1	30.00	8.00	6.70		220.50
	60.00 90.00	1	30.00	6.70	6.00		190.50
	90.00 120.00	1	30.00	6.00	7.30		199.50
	120.00 150.00	1	0.00	7.30	9.30		0.00
	150.00 180.00	1	0.00	9.30	10.00		0.00
	180.00 210.00	1	0.00	10.00	9.30		0.00
	210.00 240.00	1	0.00	9.30	10.30		0.00
	240.00 270.00	1	30.00	10.30	9.20		292.50
	270.00 300.00	1	30.00	9.20	9.00		273.00
	300.00 330.00	1	30.00	9.00	9.80		282.00
	330.00 360.00	1	30.00	9.80	8.60		276.00
	360.00 390.00	1	30.00	8.60	8.10		250.50
	390.00 420.00	1	30.00	8.10	8.40		247.50
	420.00 450.00	1	30.00	8.40	8.90		259.50
	450.00 480.00	1	30.00	8.90	9.50		276.00
	480.00 510.00	1	30.00	9.50	9.55		285.75
	510.00 540.00	1	30.00	9.55	9.70		288.75
	540.00 570.00	1	30.00	9.70	9.60		289.50
	570.00 600.00	1	0.00	9.60	9.30		0.00
	600.00 630.00	1	0.00	9.30	9.00		0.00
	630.00 660.00	1	0.00	9.00	9.20		0.00
	660.00 690.00	1	0.00	9.20	9.00		0.00
	690.00 720.00	1	0.00	9.00	9.70		0.00
	720.00 750.00	1	0.00	9.70	9.40		0.00
	750.00 759.70	1	0.00	9.40	12.30		0.00
						Total	**3631.50**
							Sqm

Assistant Engineer 12/10/2020
Ward No.12
BBMP, Bengaluru

Assistant Executive Engineer 12/10
Shettyhalli Sub Divison
BBMP, Bengaluru

Civil Consultants & Engineers Bangalore

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work	No	L	B	D	Qty
9	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. as per Engineer In Charge					
	Shettyhalli railwaygate to Abbigere Main Road					

Chainages		No	L	B1	B2	D	Qty
0.00	30.00	1	0.00	10.00	8.00		0.00
30.00	60.00	1	30.00	8.00	6.70	0.4	176.40
60.00	90.00	1	30.00	6.70	6.00	0.4	152.40
90.00	120.00	1	30.00	6.00	7.30	0.4	159.60
120.00	150.00	1	0.00	7.30	9.30		0.00
150.00	180.00	1	0.00	9.30	10.00		0.00
180.00	210.00	1	0.00	10.00	9.30		0.00
210.00	240.00	1	0.00	9.30	10.30		0.00
240.00	270.00	1	30.00	10.30	9.20	0.4	234.00
270.00	300.00	1	30.00	9.20	9.00	0.4	218.40
300.00	330.00	1	30.00	9.00	9.80	0.4	225.60
330.00	360.00	1	30.00	9.80	8.60	0.4	220.80
360.00	390.00	1	30.00	8.60	8.10	0.4	200.40
390.00	420.00	1	30.00	8.10	8.40	0.4	198.00
420.00	450.00	1	30.00	8.40	8.90	0.4	207.60
450.00	480.00	1	30.00	8.90	9.50	0.4	220.80
480.00	510.00	1	30.00	9.50	9.55	0.4	228.60
510.00	540.00	1	30.00	9.55	9.70	0.4	231.00
540.00	570.00	1	30.00	9.70	9.60	0.4	231.60
570.00	600.00	1	0.00	9.60	9.30		0.00
600.00	630.00	1	0.00	9.30	9.00		0.00
630.00	660.00	1	0.00	9.00	9.20		0.00
660.00	690.00	1	0.00	9.20	9.00		0.00
690.00	720.00	1	0.00	9.00	9.70		0.00
720.00	750.00	1	0.00	9.70	9.40		0.00
750.00	759.70	1	0.00	9.40	12.30		0.00
							2905.20

Assistant Engineer
Ward No.12
BBMP, Bengaluru
20/10/2020

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru
20/10

Civil-Tech Consultants & Engineers Bangalore

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work	No	L	B	D	Qty
10	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications. MORTH / Chapter 3 as per Engineer In Charge					
	Shettyhalli railwaygate to Abbigere Main Road					
	Chainages	**No**	**L**	**B1**	**B2**	**D**	**Qty**
	0.00 30.00	1	0.00	10.00	8.00		0.00
	30.00 60.00	1	30.00	8.00	6.70		220.50
	60.00 90.00	1	30.00	6.70	6.00		190.50
	90.00 120.00	1	30.00	6.00	7.30		199.50
	120.00 150.00	1	0.00	7.30	9.30		0.00
	150.00 180.00	1	0.00	9.30	10.00		0.00
	180.00 210.00	1	0.00	10.00	9.30		0.00
	210.00 240.00	1	0.00	9.30	10.30		0.00
	240.00 270.00	1	30.00	10.30	9.20		292.50
	270.00 300.00	1	30.00	9.20	9.00		273.00
	300.00 330.00	1	30.00	9.00	9.80		282.00
	330.00 360.00	1	30.00	9.80	8.60		276.00
	360.00 390.00	1	30.00	8.60	8.10		250.50
	390.00 420.00	1	30.00	8.10	8.40		247.50
	420.00 450.00	1	30.00	8.40	8.90		259.50
	450.00 480.00	1	30.00	8.90	9.50		276.00
	480.00 510.00	1	30.00	9.50	9.55		285.75
	510.00 540.00	1	30.00	9.55	9.70		288.75
	540.00 570.00	1	30.00	9.70	9.60		289.50
	570.00 600.00	1	0.00	9.60	9.30		0.00
	600.00 630.00	1	0.00	9.30	9.00		0.00
	630.00 660.00	1	0.00	9.00	9.20		0.00
	660.00 690.00	1	0.00	9.20	9.00		0.00
	690.00 720.00	1	0.00	9.00	9.70		0.00
	720.00 750.00	1	0.00	9.70	9.40		0.00
	750.00 759.70	1	0.00	9.40	12.30		0.00
						Total	**3631.50**
							Sqm

Assistant Engineer
Ward No.12
BBMP, Bengaluru
23/10/2020

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru
23/10

Consultants & Engineers Bangalore

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work		No	L	B	D	Qty
11	0400 Stone dust / Grit 4.75 mm to 0.075 mm as per Engineer In Charge						
	Shettyhalli railwaygate to Abbigere Main Road						
	Chainages		**No**	**L**	**B**	**D**	**Qty**
	0.00	30.00	1	30.00	1.20	0.30	10.80
	30.00	60.00	1	30.00	1.20	0.30	10.80
	60.00	90.00	1	30.00	1.20	0.30	10.80
	90.00	120.00	1	30.00	1.20	0.30	10.80
	120.00	150.00	1	30.00	1.20	0.30	10.80
	150.00	180.00	1	30.00	1.20	0.30	10.80
	180.00	210.00	1	30.00	1.20	0.30	10.80
	210.00	240.00	1	30.00	1.20	0.30	10.80
	240.00	270.00	1	30.00	1.20	0.30	10.80
	270.00	300.00	1	30.00	1.20	0.30	10.80
	300.00	330.00	1	30.00	1.20	0.30	10.80
	330.00	360.00	1	30.00	1.20	0.30	10.80
	360.00	390.00	1	30.00	1.20	0.30	10.80
	390.00	420.00	1	30.00	1.20	0.30	10.80
	420.00	450.00	1	30.00	1.20	0.30	10.80
	450.00	480.00	1	30.00	1.20	0.30	10.80
	480.00	510.00	1	30.00	1.20	0.30	10.80
	510.00	540.00	1	30.00	1.20	0.30	10.80
	540.00	570.00	1	30.00	1.20	0.30	10.80
	570.00	600.00	1	30.00	1.20	0.30	10.80
	600.00	630.00	1	30.00	1.20	0.30	10.80
	630.00	660.00	1	30.00	1.20	0.30	10.80
	660.00	690.00	1	30.00	1.20	0.30	10.80
	690.00	720.00	1	30.00	1.20	0.30	10.80
	720.00	750.00	1	30.00	1.20	0.30	10.80
	750.00	759.70	1	9.70	1.20	0.30	3.49
						Total	**273.49**
							Cum

23/10/2020

Assistant Engineer
Ward No.12
BBMP, Bengaluru

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru

23/10

Civil Tech Consultants & Engineers Bangalore

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BRUHATH BANGALORE MAHANAGARA PALIKE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli

First and Part Bill

Measurement Recorded in :

Sl. No	ription of	Chainages		No	L	B1	B2	D	Qty
12	Construction of granular sub-base Grading-V as Sub-base and drainage layer by								
	Shettyhalli railwaygate to Abbigere Main Road								
		0.00	30.00	1	30.00	1.20		0.15	5.40
		30.00	60.00	1	30.00	1.20		0.15	5.40
		60.00	90.00	1	30.00	1.20		0.15	5.40
		90.00	120.00	1	30.00	1.20		0.15	5.40
		120.00	150.00	1	30.00	1.20		0.15	5.40
		150.00	180.00	1	30.00	1.20		0.15	5.40
		180.00	210.00	1	30.00	1.20		0.15	5.40
		210.00	240.00	1	30.00	1.20		0.15	5.40
		240.00	270.00	1	30.00	1.20		0.15	5.40
		270.00	300.00	1	30.00	1.20		0.15	5.40
		300.00	330.00	1	30.00	1.20		0.15	5.40
		330.00	360.00	1	30.00	1.20		0.15	5.40
		360.00	390.00	1	30.00	1.20		0.15	5.40
		390.00	420.00	1	30.00	1.20		0.15	5.40
		420.00	450.00	1	30.00	1.20		0.15	5.40
		450.00	480.00	1	30.00	1.20		0.15	5.40
		480.00	510.00	1	30.00	1.20		0.15	5.40
		510.00	540.00	1	30.00	1.20		0.15	5.40
		540.00	570.00	1	30.00	1.20		0.15	5.40
		570.00	600.00	1	30.00	1.20		0.15	5.40
		600.00	630.00	1	30.00	1.20		0.15	5.40
		630.00	660.00	1	30.00	1.20		0.15	5.40
		660.00	690.00	1	30.00	1.20		0.15	5.40
		690.00	720.00	1	30.00	1.20		0.15	5.40
		720.00	750.00	1	30.00	1.20		0.15	5.40
		750.00	759.70	1	9.70	1.20		0.15	1.75
	Shettyhalli main road to shattyhalli Aralimarada							0.15	0.00
		0	15	1	15.00	8.20	8.20	0.15	18.45
		15	30	1	15.00	8.20	8.20	0.15	18.45
		30	45	1	15.00	8.20	8.20	0.15	18.45
		45	60	1	15.00	8.20	7.00	0.15	18.45
		60	75	1	15.00	7.00	6.20	0.15	15.75
		75	90	1	15.00	6.20	6.15	0.15	13.95
		90	105	1	15.00	6.15	6.00	0.15	13.84
		105	120	1	15.00	6.00	5.40	0.15	13.50
		120	135	1	15.00	5.40	5.90	0.15	12.15
		135	150	1	15.00	5.90	5.60	0.15	13.28

Consulting & Engineers

28/10/2020

28/10

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		150	165	1	15.00	5.60	5.70	0.15	12.60
		165	180	1	15.00	5.70	5.50	0.15	12.83
		180	195	1	15.00	5.50	5.90	0.15	12.38
		195	211	1	16.00	5.90	8.00	0.15	14.16
								Total	**344.97**

Assistant Engineer
Ward No.12
BBMP, Bengaluru

28/10/2020

Assistant Executive Engineer
Shettyhalli Sub Division
BBMP, Bengaluru

28/10

Tech Consultants & Engineers
Bangalore

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work	Chainages		No	L	B	D	Qty
13	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 as per Engineer In Charge							
	Shettyhalli railwaygate to Abbigere Main Road							
		0.00	30.00	1	30.00	1.00	0.225	6.75
		30.00	60.00	1	30.00	1.00	0.225	6.75
		60.00	90.00	1	30.00	1.00	0.225	6.75
		90.00	120.00	1	30.00	1.00	0.225	6.75
		120.00	150.00	1	30.00	1.00	0.225	6.75
		150.00	180.00	1	30.00	1.00	0.225	6.75
		180.00	210.00	1	30.00	1.00	0.225	6.75
		210.00	240.00	1	30.00	1.00	0.225	6.75
		240.00	270.00	1	30.00	1.00	0.225	6.75
		270.00	300.00	1	30.00	1.00	0.225	6.75
		300.00	330.00	1	30.00	1.00	0.225	6.75
		330.00	360.00	1	30.00	1.00	0.225	6.75
		360.00	390.00	1	30.00	1.00	0.225	6.75
		390.00	420.00	1	30.00	1.00	0.225	6.75
		420.00	450.00	1	30.00	1.00	0.225	6.75
		450.00	480.00	1	30.00	1.00	0.225	6.75
		480.00	510.00	1	30.00	1.00	0.225	6.75
		510.00	540.00	1	30.00	1.00	0.225	6.75
		540.00	570.00	1	30.00	1.00	0.225	6.75
		570.00	600.00	1	30.00	1.00	0.225	6.75
		600.00	630.00	1	30.00	1.00	0.225	6.75
		630.00	660.00	1	30.00	1.00	0.225	6.75
		660.00	690.00	1	30.00	1.00	0.225	6.75
		690.00	720.00	1	30.00	1.00	0.225	6.75
		720.00	750.00	1	30.00	1.00	0.225	6.75
		750.00	759.70	1	9.70	1.00	0.225	2.18

Rs. 350086.00

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	Shettyhalli main road to shattyhalli Aralimarada Aswathkatte						0.225	0.00
		0	15	1	15.00	1.00	0.225	15.00
		15	30	1	15.00	1.00	0.225	15.00
		30	45	1	15.00	1.00	0.225	15.00
		45	60	1	15.00	1.00	0.225	15.00
		60	75	1	15.00	1.00	0.225	15.00
		75	90	1	15.00	1.00	0.225	15.00
		90	105	1	15.00	1.00	0.225	15.00
		105	120	1	15.00	1.00	0.225	15.00
		120	135	1	15.00	1.00	0.225	15.00
		135	150	1	15.00	1.00	0.225	15.00
		150	165	1	15.00	1.00	0.225	15.00
		165	180	1	15.00	1.00	0.225	15.00
		180	195	1	15.00	1.00	0.225	15.00
		195	211	1	16.00	1.00	0.225	16.00
							Total	**381.93**
								Cum

Civil Tech Consultants & Engineers Bangalore

18/4/2020

Assistant Engineer
Ward No.12
BBMP, Bengaluru

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : **Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.**

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work	Chainages		No	L	B	D	Qty
14	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. Clause 502 of MORTH V revision as per Engineer In Charge							
	Shettyhalli railwaygate to Abbigere Main Road							
		0.00	30.00	2	30.00	1.20		72.00
		30.00	60.00	2	30.00	1.20		72.00
		60.00	90.00	2	30.00	1.20		72.00
		90.00	120.00	2	30.00	1.20		72.00
		120.00	150.00	2	30.00	1.20		72.00
		150.00	180.00	2	30.00	1.20		72.00
		180.00	210.00	2	30.00	1.20		72.00
		210.00	240.00	2	30.00	1.20		72.00
		240.00	270.00	2	30.00	1.20		72.00
		270.00	300.00	2	30.00	1.20		72.00
		300.00	330.00	2	30.00	1.20		72.00
		330.00	360.00	2	30.00	1.20		72.00
		360.00	390.00	2	30.00	1.20		72.00
		390.00	420.00	2	30.00	1.20		72.00
		420.00	450.00	2	30.00	1.20		72.00
		450.00	480.00	2	30.00	1.20		72.00
		480.00	510.00	2	30.00	1.20		72.00
		510.00	540.00	2	30.00	1.20		72.00
		540.00	570.00	2	30.00	1.20		72.00
		570.00	600.00	2	30.00	1.20		72.00
		600.00	630.00	2	30.00	1.20		72.00
		630.00	660.00	2	30.00	1.20		72.00
		660.00	690.00	2	30.00	1.20		72.00
		690.00	720.00	2	30.00	1.20		72.00
		720.00	750.00	2	30.00	1.20		72.00

29/12/2020

29/12

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		750.00	759.70	2	9.70	1.20		23.28
	Shettyhalli main road to shattyhalli Aralimarada Aswathkatte							0.00
		0	15	3	15.00	1.20		54.00
		15	30	3	15.00	1.20		54.00
		30	45	3	15.00	1.20		54.00
		45	60	3	15.00	1.20		54.00
		60	75	3	15.00	1.20		54.00
		75	90	3	15.00	1.20		54.00
		90	105	3	15.00	1.20		54.00
		105	120	3	15.00	1.20		54.00
		120	135	3	15.00	1.20		54.00
		135	150	3	15.00	1.20		54.00
		150	165	3	15.00	1.20		54.00
		165	180	3	15.00	1.20		54.00
		180	195	3	15.00	1.20		54.00
		195	211	3	16.00	1.20		57.60
								2582.88
								Sqm

Civil Tech Consultants & Engineers Bangalore

22/12/2020

Assistant Engineer
Ward No.12
BBMP, Bengaluru

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : **Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.**

Measurement Recorded in : **First and final Bill**

Sl. No	Description of work	Chainages		No	L	B1	B2	D	Qty
15	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications. Clause 501 of MORTH V revision as per Engineer In Charge								
	Shettyhalli railwaygate to Abbigere Main Road								
		0.00	30.00	1	30.00	10.00	8.00		270.00
		30.00	60.00	1	30.00	8.00	6.70		220.50
		60.00	90.00	1	30.00	6.70	6.00		190.50
		90.00	120.00	1	30.00	6.00	7.30		199.50
		120.00	150.00	1	30.00	7.30	9.30		249.00
		150.00	180.00	1	30.00	9.30	10.00		289.50
		180.00	210.00	1	30.00	10.00	9.30		289.50
		210.00	240.00	1	30.00	9.30	10.30		294.00
		240.00	270.00	1	30.00	10.30	9.20		292.50
		270.00	300.00	1	30.00	9.20	9.00		273.00
		300.00	330.00	1	30.00	9.00	9.80		282.00
		330.00	360.00	1	30.00	9.80	8.60		276.00
		360.00	390.00	1	30.00	8.60	8.10		250.50
		390.00	420.00	1	30.00	8.10	8.40		247.50
		420.00	450.00	1	30.00	8.40	8.90		259.50
		450.00	480.00	1	30.00	8.90	9.50		276.00
		480.00	510.00	1	30.00	9.50	9.55		285.75
		510.00	540.00	1	30.00	9.55	9.70		288.75
		540.00	570.00	1	30.00	9.70	9.60		289.50
		570.00	600.00	1	30.00	9.60	9.30		283.50
		600.00	630.00	1	30.00	9.30	9.00		274.50
		630.00	660.00	1	30.00	9.00	9.20		273.00
		660.00	690.00	1	30.00	9.20	9.00		273.00
		690.00	720.00	1	30.00	9.00	9.70		280.50
		720.00	750.00	1	30.00	9.70	9.40		286.50
		750.00	759.70	1	9.70	9.40	12.30		105.25
	Shettyhalli main road to shattyhalli Aralimarada Aswathkatte								
		0	15	1	15.00	8.20	8.20		123.00
		15	30	1	15.00	8.20	8.20		123.00
		30	45	1	15.00	8.20	8.20		123.00
		45	60	1	15.00	8.20	7.00		123.00
		60	75	1	15.00	7.00	6.20		105.00
		75	90	1	15.00	6.20	6.15		93.00
		90	105	1	15.00	6.15	6.00		92.25
		105	120	1	15.00	6.00	5.40		90.00
		120	135	1	15.00	5.40	5.90		81.00

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	135	150	1	15.00	5.90	5.60		88.50
	150	165	1	15.00	5.60	5.70		84.00
	165	180	1	15.00	5.70	5.50		85.50
	180	195	1	15.00	5.50	5.90		82.50
	195	211	1	16.00	5.90	8.00		94.40
							Total	8187.90

Assistant Engineer
Ward No.12
BBMP, Bengaluru

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru

Civil Tech Consultants & Engineers
Bangalore

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work	Chainages		No	L	B1	B2	D	Qty
16	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications. Clause 503 of MORTH V revision as per Engineer In Charge								
	Shettyhalli railwaygate to Abbigere Main Road								
		0.00	30.00	1	30.00	10.00	8.00		270.00
		30.00	60.00	1	30.00	8.00	6.70		220.50
		60.00	90.00	1	30.00	6.70	6.00		190.50
		90.00	120.00	1	30.00	6.00	7.30		199.50
		120.00	150.00	1	30.00	7.30	9.30		249.00
		150.00	180.00	1	30.00	9.30	10.00		289.50
		180.00	210.00	1	30.00	10.00	9.30		289.50
		210.00	240.00	1	30.00	9.30	10.30		294.00
		240.00	270.00	1	30.00	10.30	9.20		292.50
		270.00	300.00	1	30.00	9.20	9.00		273.00
		300.00	330.00	1	30.00	9.00	9.80		282.00
		330.00	360.00	1	30.00	9.80	8.60		276.00
		360.00	390.00	1	30.00	8.60	8.10		250.50
		390.00	420.00	1	30.00	8.10	8.40		247.50
		420.00	450.00	1	30.00	8.40	8.90		259.50
		450.00	480.00	1	30.00	8.90	9.50		276.00
		480.00	510.00	1	30.00	9.50	9.55		285.75
		510.00	540.00	1	30.00	9.55	9.70		288.75
		540.00	570.00	1	30.00	9.70	9.60		289.50
		570.00	600.00	1	30.00	9.60	9.30		283.50
		600.00	630.00	1	30.00	9.30	9.00		274.50
		630.00	660.00	1	30.00	9.00	9.20		273.00
		660.00	690.00	1	30.00	9.20	9.00		273.00
		690.00	720.00	1	30.00	9.00	9.70		280.50
		720.00	750.00	1	30.00	9.70	9.40		286.50

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30/12/2020

30/12

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		750.00	759.70	1	9.70	9.40	12.30	105.25
Shettyhalli main road to shattyhalli Aralimarada Aswathkatte								
		0	15	1	15.00	8.20	8.20	123.00
		15	30	1	15.00	8.20	8.20	123.00
		30	45	1	15.00	8.20	8.20	123.00
		45	60	1	15.00	8.20	7.00	114.00
		60	75	1	15.00	7.00	6.20	99.00
		75	90	1	15.00	6.20	6.15	92.63
		90	105	1	15.00	6.15	6.00	91.13
		105	120	1	15.00	6.00	5.40	85.50
		120	135	1	15.00	5.40	5.90	84.75
		135	150	1	15.00	5.90	5.60	86.25
		150	165	1	15.00	5.60	5.70	84.75
		165	180	1	15.00	5.70	5.50	84.00
		180	195	1	15.00	5.50	5.90	85.50
		195	211	1	16.00	5.90	8.00	111.20
								8187.45
								Sqm

30/12/2020

Assistant Engineer
Ward No 12
BBMP, Bengaluru

Civil-Tech Consultants & Engg. Bangalore

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru

20/12

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work	Chainages		No	L	B1	B2	D	Qty
18	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision - do - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen as per Engineer In Charge									
	Shettyhalli railwaygate to Abbigere Main Road								
			0.00	30.00	1	30.00	10.00	8.00	0.05	13.50
			30.00	60.00	1	30.00	8.00	6.70	0.05	11.03
			60.00	90.00	1	30.00	6.70	6.00	0.05	9.53
			90.00	120.00	1	30.00	6.00	7.30	0.05	9.98
			120.00	150.00	1	30.00	7.30	9.30	0.05	12.45
			150.00	180.00	1	30.00	9.30	10.00	0.05	14.48
			180.00	210.00	1	30.00	10.00	9.30	0.05	14.48
			210.00	240.00	1	30.00	9.30	10.30	0.05	14.70
			240.00	270.00	1	30.00	10.30	9.20	0.05	14.63
			270.00	300.00	1	30.00	9.20	9.00	0.05	13.65
			300.00	330.00	1	30.00	9.00	9.80	0.05	14.10
			330.00	360.00	1	30.00	9.80	8.60	0.05	13.80
			360.00	390.00	1	30.00	8.60	8.10	0.05	12.53
			390.00	420.00	1	30.00	8.10	8.40	0.05	12.38
			420.00	450.00	1	30.00	8.40	8.90	0.05	12.98
			450.00	480.00	1	30.00	8.90	9.50	0.05	13.80
			480.00	510.00	1	30.00	9.50	9.55	0.05	14.29
			510.00	540.00	1	30.00	9.55	9.70	0.05	14.44
			540.00	570.00	1	30.00	9.70	9.60	0.05	14.48
			570.00	600.00	1	30.00	9.60	9.30	0.05	14.18
			600.00	630.00	1	30.00	9.30	9.00	0.05	13.73
			630.00	660.00	1	30.00	9.00	9.20	0.05	13.65
			660.00	690.00	1	30.00	9.20	9.00	0.05	13.65
			690.00	720.00	1	30.00	9.00	9.70	0.05	14.03
			720.00	750.00	1	30.00	9.70	9.40	0.05	14.33
			750.00	759.70	1	9.70	9.40	12.30	0.05	5.26
	Shettyhalli main road to shattyhalli Aralimarada Aswathkatte									
			0	15	1	15.00	8.20	8.20	0.05	6.15
			15	30	1	15.00	8.20	8.20	0.05	6.15
			30	45	1	15.00	8.20	8.20	0.05	6.15
			45	60	1	15.00	8.20	7.00	0.05	5.70
			60	75	1	15.00	7.00	6.20	0.05	4.95
			75	90	1	15.00	6.20	6.15	0.05	4.63

Civil Tech Consultants & Engineers Bangalore

31/12/2020

31/12

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		90	105	1	15.00	6.15	6.00	0.05	4.56
		105	120	1	15.00	6.00	5.40	0.05	4.28
		120	135	1	15.00	5.40	5.90	0.05	4.24
		135	150	1	15.00	5.90	5.60	0.05	4.31
		150	165	1	15.00	5.60	5.70	0.05	4.24
		165	180	1	15.00	5.70	5.50	0.05	4.20
		180	195	1	15.00	5.50	5.90	0.05	4.28
		195	211	1	16.00	5.90	8.00	0.05	5.56
								Total	**409.37**
									Cum

31/12/2020

Assistant Engineer
Ward No.12
BBMP, Bengaluru

Civil-Tech Consultants & Engineers Bangalore

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru

31/12

Scanned with CamScanner

BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : **Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.**

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work			No	L	B1	B2	D	Qty
18	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015. – do – using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) as per Engineer In Charge								
	Shettyhalli railwaygate to Abbigere Main Road								
			0.00	30.00	1	30.00	10.00	8.00	0.04	10.80
			30.00	60.00	1	30.00	8.00	6.70	0.04	8.82
			60.00	90.00	1	30.00	6.70	6.00	0.04	7.62
			90.00	120.00	1	30.00	6.00	7.30	0.04	7.98
			120.00	150.00	1	30.00	7.30	9.30	0.04	9.96
			150.00	180.00	1	30.00	9.30	10.00	0.04	11.58
			180.00	210.00	1	30.00	10.00	9.30	0.04	11.58
			210.00	240.00	1	30.00	9.30	10.30	0.04	11.76
			240.00	270.00	1	30.00	10.30	9.20	0.04	11.70
			270.00	300.00	1	30.00	9.20	9.00	0.04	10.92
			300.00	330.00	1	30.00	9.00	9.80	0.04	11.28
			330.00	360.00	1	30.00	9.80	8.60	0.04	11.04
			360.00	390.00	1	30.00	8.60	8.10	0.04	10.02
			390.00	420.00	1	30.00	8.10	8.40	0.04	9.90
			420.00	450.00	1	30.00	8.40	8.90	0.04	10.38
			450.00	480.00	1	30.00	8.90	9.50	0.04	11.04
			480.00	510.00	1	30.00	9.50	9.55	0.04	11.43
			510.00	540.00	1	30.00	9.55	9.70	0.04	11.55
			540.00	570.00	1	30.00	9.70	9.60	0.04	11.58
			570.00	600.00	1	30.00	9.60	9.30	0.04	11.34
			600.00	630.00	1	30.00	9.30	9.00	0.04	10.98
			630.00	660.00	1	30.00	9.00	9.20	0.04	10.92
			660.00	690.00	1	30.00	9.20	9.00	0.04	10.92
			690.00	720.00	1	30.00	9.00	9.70	0.04	11.22
			720.00	750.00	1	30.00	9.70	9.40	0.04	11.46
			750.00	759.70	1	9.70	9.40	12.30	0.04	4.21
	Shettyhalli main road to shattyhalli Aralimarada Aswathkatte									
			0	15	1	15.00	8.20	8.20	0.04	4.92
			15	30	1	15.00	8.20	8.20	0.04	4.92
			30	45	1	15.00	8.20	8.20	0.04	4.92
			45	60	1	15.00	8.20	7.00	0.04	4.56

29/01/2021

29/1/2

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		60	75	1	15.00	7.00	6.20	0.04	3.96
		75	90	1	15.00	6.20	6.15	0.04	3.71
		90	105	1	15.00	6.15	6.00	0.04	3.65
		105	120	1	15.00	6.00	5.40	0.04	3.42
		120	135	1	15.00	5.40	5.90	0.04	3.39
		135	150	1	15.00	5.90	5.60	0.04	3.45
		150	165	1	15.00	5.60	5.70	0.04	3.39
		165	180	1	15.00	5.70	5.50	0.04	3.36
		180	195	1	15.00	5.50	5.90	0.04	3.42
		195	211	1	16.00	5.90	8.00	0.04	4.45
								Total	**327.50**
									Cum

Assistant Engineer
Ward No.12
BBMP, Bengaluru

29/01/2021

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru

29/01

Civil Tech Consultants & Engineers Bangalore

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BRUHATH BANGALORE MAHANAGARA PALIKE
DASARAHALLI ZONE

Name of work : Annual Maintenance and Re-Asphalting of Shettyhalli Railway Gate to Abbigere Main Road and Surrounding area in Ward No.12 Shettyhalli Sub Division.

First and Part Bill

Measurement Recorded in :

Sl. No	Description of work	Chainages		No	L	B	D	Qty
19	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 as per Engineer In Charge							
	Shettyhalli railwaygate to Abbigere Main Road							
		0.00	30.00	2	30.00	0.15		9.00
		30.00	60.00	2	30.00	0.15		9.00
		60.00	90.00	2	30.00	0.15		9.00
		90.00	120.00	2	30.00	0.15		9.00
		120.00	150.00	2	30.00	0.15		9.00
		150.00	180.00	2	30.00	0.15		9.00
		180.00	210.00	2	30.00	0.15		9.00
		210.00	240.00	2	30.00	0.15		9.00
		240.00	270.00	2	30.00	0.15		9.00
		270.00	300.00	2	30.00	0.15		9.00
		300.00	330.00	2	30.00	0.15		9.00
		330.00	360.00	2	30.00	0.15		9.00
		360.00	390.00	2	30.00	0.15		9.00
		390.00	420.00	2	30.00	0.15		9.00
		420.00	450.00	2	30.00	0.15		9.00
		450.00	480.00	2	30.00	0.15		9.00
		480.00	510.00	2	30.00	0.15		9.00
		510.00	540.00	2	30.00	0.15		9.00
		540.00	570.00	2	30.00	0.15		9.00
		570.00	600.00	2	30.00	0.15		9.00
		600.00	630.00	2	30.00	0.15		9.00
		630.00	660.00	2	30.00	0.15		9.00
		660.00	690.00	2	30.00	0.15		9.00
		690.00	720.00	2	30.00	0.15		9.00
		720.00	750.00	2	30.00	0.15		9.00
		750.00	759.70	2	9.70	0.15		2.91
		Centreline marking		170	3.00	0.10		51.00

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						Total	278.91
							Cum

04/02/2021

Assistant Engineer
Ward No.12
BBMP, Bengaluru

Assistant Executive Engineer
Shettyhalli Sub Divison
BBMP, Bengaluru

9/2

Civil-Tech Consultants & Engineers
Bangalore

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